

Applicant : Gregg D. Wilensky
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REMARKS

Claims 1-32 were pending as of the action mailed on June 21, 2005.

Claims 1, 5-8, 11-17, 21-24, and 27-32 are being amended. No new matter has been added.

The amendments to the claims include changing "attributes" to "local attributes" in order to use consistent terminology throughout the claims. The addition of the word "local" does not change the scope of the claims.

The amendments to claims 16 and 32 clarify the meaning of "directional correction," and do not change the scope of the claims.

Reexamination and reconsideration of the action are requested in light of the foregoing amendments and the following remarks.

Section 103

Claims 1-14, 16-30 and 32 were rejected as allegedly unpatentable over U.S. Patent No. 6,204,848 ("Gupta") in view of U.S. Patent Application Publication US2003/0099411 ("Kokemohr"). The applicant respectfully traverses the rejections, and submits that the rejections do not address the actual limitations of the claims.

Claim 1 recites a method for processing a digital image that includes modifying the digital image at a location. The modification causes a change in a first local attribute of the image at the location. The change of the first local attribute is measured, and a second local attribute that is different from the first local attribute is adjusted at the location based on the measured change of the first local attribute.

Gupta discloses a method of detecting and correcting a red-eye effect in a color digital image. *See* column 2, lines 44-64. Candidate eyes are identified automatically by enhancing the red color in the image and testing the enhanced image to find circular red areas. *See* column 3, lines 24-26 and column 4, lines 4-11. Once a red-eye area is found, the red-eye effect is reduced. *See* column 5, lines 5-8. Because red-eye effects can have associated areas of white glare, the intensity of the glare in a red-eye region can be reduced, for example, by reducing the red, green,

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and blue values of the glare area or by replacing the color data with predetermined values. *See* column 5, line 66 to column 6, line 10. Gupta does not measure a change in a first local attribute when finding red eye effects, when reducing a red-eye effect, or when finding glare areas. Neither are any of the red-eye location, red-eye reduction, or glare reduction steps based on any measured change from a previous modification. As the Examiner admits that Gupta does not disclose a step of measuring a change to a first local attribute, the applicant does not understand how the examiner can find a step of adjusting a second local attribute based on a measured change of the first local attribute. The Examiner attempts to use a "testing" step to link Gupta's reduction of glare to his enhancement of the red color, but the testing step does not measure a change in the red color caused by an image modification, and the reduction of glare is not based on a measured change in the red color.

Kokemohr discloses a method for processing a digital image by allowing a user to place image reference points (IRPs) in the image and assign an image editing function to each IRP. *See* ¶0009. A set of pixel characteristics (*e.g.*, pixel coordinates) is determined along with the image editing function, and a mixing function algorithm modifies the image using the set of pixel characteristics and the image editing function. *See* ¶0010 and ¶0039. The mixing function algorithm can include a difference function that calculates a value based on the difference between characteristics of an unmodified actual pixel in the image and the determined set of pixel characteristics. *See* ¶0010, ¶¶0105-0109, and ¶0139. The rejection based on Kokemohr incorrectly characterizes the "measuring" limitation of claim 1, because Kokemohr does not disclose measuring a change of a first local attribute. Kokemohr's difference function compares characteristics of unmodified pixels in an image to a set of "target" characteristics to control how the pixels are then modified by the image editing function.

The applicant does not agree that there would be any motivation to combine Gupta and Kokemohr as suggested by the Examiner. Even if Gupta and Kokemohr were combined, the result would not make claim 1 obvious, because neither Gupta nor Kokemohr, taken alone or in combination, disclose or suggest measuring a change of a first local attribute and adjusting a second local attribute that is different from the first local attribute based on the measured change.

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For at least these reasons, claim 1 and dependent claims 2-14 and 16 are allowable over Gupta and Kokemohr.

Claim 17 includes limitations similar to those of claim 1. For at least this reason, claim 17 and dependent claims 18-30 and 32 are allowable over Gupta and Kokemohr.

Claim 6 recites modifying the digital image at a location, where the modification causes a change of the luminance of the image at the location. The change of the luminance is measured, and the chrominance of the image is adjusted at the location based on the measured change of the luminance.

Neither Gupta nor Kokemohr, taken alone or in combination, teach modifying chrominance in an image based on a measured change in luminance.

For at least this additional reason, claim 6 is allowable over Gupta and Kokemohr.

Claim 22 includes limitations similar to those of claim 6, and is allowable for at least the same additional reason.

In rejecting claims 8-10, the Examiner asserted that sharpening or blurring an image is obvious when a user adjusts color intensity. The applicant respectfully disagrees.

As amended, claim 16 recites adjusting the second local attribute of the image includes applying a directional correction, where the directional correction is a correction that only applies if the first local attribute has been changed in a specific direction.

Neither Gupta nor Kokemohr, alone or in combination, disclose or suggest adjusting the second local attribute includes a directional correction. The "offset vectors" in Kokemohr that the Examiner cites to control the spatial direction in which an image modification is applied, and do not refer to corrections that are only applied to an image if a first local attribute has been changed in a specific direction.

For at least this additional reason, claim 16 is allowable over Gupta and Kokemohr.

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Claim 32 includes limitations similar to those of claim 16 and is allowable for at least the same additional reason.

Claims 15 and 31 were rejected as allegedly unpatentable over Gupta in view of Kokemohr and further in view of U.S. Patent Application Publication US2003/0234960 ("Kaltenbach"). The applicant respectfully traverses the rejection.

As amended, claim 15 recites the method of claim 1, adding that the adjustment to the second local attribute is a function of the measured change of the first local attribute.

Kaltenbach discloses a method for inspecting printed pictures to detect problems with a printing process. *See abstract.* A difference between an original image and a printed version of the image is computed, and corrective action (*e.g.*, reprinting the image) is taken if the difference exceeds a threshold. *See abstract, ¶0023, and ¶0027.* The corrective action in Kaltenbach does not include adjusting a second local attribute based on a measured change of a first local attribute.

Kaltenbach does not disclose or suggest, alone or in combination with Gupta and Kokemohr, measuring a change of a first local attribute and adjusting a second local attribute that is different from the first local attribute based on the measured change. Neither does the combination of Kaltenbach, Gupta, and Kokemohr disclose or suggest that an adjustment to a second local attribute is a function of a measured change of a first local attribute.

For at least these reasons, dependent claim 15 is allowable over the combination of Gupta, Kokemohr, and Kaltenbach.

Claim 31 includes limitations similar to those of claim 15 and is allowable for at least the same reasons.

Conclusion

For the foregoing reasons, the applicant submits that all the claims are in condition for allowance.

By responding in the foregoing remarks only to particular positions taken by the examiner, the applicant does not acquiesce in other positions that have not been explicitly

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addressed. In addition, the applicant's arguments for the patentability of a claim should not be understood as implying that no other reasons for the patentability of that claim exist.

Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

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